

Dan Coecoe@caltech.edu

Caltech Postdoc at JPL

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Jet Propulsion Laboratory
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Home Address**Personal**

Jan. 1978

Born in New York – U.S. Citizenship

Education

Sept. 2007

Johns Hopkins University

Ph.D. in Astronomy

May 2004

M.S. in Astronomy

June 2000

admitted on Kerr partial fellowship

May 1999

Cornell University

B.S. Applied & Engineering Physics

Cum Laude and Departmental Honors

GPA 3.8 / 3.7

Research

Sept. 2007 - currently

Caltech Postdoctoral Scholar at JPL
Leonidas Moustakas

June 2001 – Sept. 2007

ACS GTO Science Team Research Asst.

Jan. 2006 – Sept. 2007

hired to work at IAA towards completion of my JHU degree
Narciso Benítez, JHU / IAA

Sept. 1999 – May 2000

N-body galaxy simulations

B.S. Honors Project

Prof. Richard Lovelace, Cornell Univ.

June 1997 – May 2000

Binary Black Hole Grand Challenge Project

Prof. Saul Teukolsky, Cornell Univ.

First Author Refereed Publications

- Mar. 2008 LensPerfect: Exact Massmap Solutions to Multiply-Imaged Galaxies
ApJ 681, 814
- Aug. 2006 Galaxies in the Hubble Ultra Deep Field I. Detection, Multiband Photometry, Photometric Redshifts, and Morphology
AJ 132, 926

Publications

- Aug. 2007 The Sextet Arcs: A Strongly Lensed Lyman Break Galaxy in the ACS Spectroscopic Galaxy Survey toward Abell 1689
Frye, B., Coe, D., et al. (2nd of 14 authors)
ApJ 665, 921
Provided photometry, photo-z's, SFR, lensing measurements, edits, etc.
- July 2007 Using Weak Lensing Dilution to Improve Measurements of the Luminous and Dark Matter in A1689
Medezinski, E. et al. (4th of 9 authors)
ApJ 663, 717
Provided galaxy distortion (ellipticity) measurements using Sarah Bridle's IM2SHAPE; manuscript edits & suggestions
- June 2007 Discovery of a Dark Matter Ring in the Core of the Galaxy Cluster CL0024+17: A Peculiar Sub-structure Revealed by Gravitational Lensing with the Advanced Camera for Surveys
Jee, M. et al. (6th of 16 authors)
ApJ 661, 728
Discussions of significance of observed features, edits, etc.
- April 2007 A Comparison of Morphological Indicators, Spectral Types, and Sizes as a Function of Redshift for Resolved Galaxies in the Hubble Ultra Deep Field
Elmegreen, D.M., Elmegreen, B.G., Ravindranath, S., Coe, D.
ApJ 658, 763
produced photometry + photo-z catalog of the objects defined in this work; manuscript edits & suggestions

- Sept. 2006 GRB 060121: Implications of a Short-/Intermediate-Duration gamma-Ray Burst at High Redshift
de Ugarte, P. et al. (12th of 26 authors)
ApJ 648, 83
Provided photo-z analysis of candidate host galaxy
- April 2006 Mass Modeling of Abell 1689 Advanced Camera for Surveys Observations with a Perturbed Navarro-Frenk-White Model
Zekser, K. C. et al. (10th of 10 authors)
ApJ 640, 639
Resolved apparent conflict between NFW fits of this and the Broadhurst et al. group; manuscript edits & suggestions
- Jan. 2006 Clustering of Star-forming Galaxies Near a Radio Galaxy at $z=5.2$
Overzier, R. A. et al. (20th of 42 authors)
ApJ 637, 58
Provided photo-z catalog
- Dec. 2005 Hubble Space Telescope Advanced Camera for Surveys Weak-Lensing and Chandra X-Ray Studies of the High-Redshift Cluster MS 1054-0321
Jee, M. J. et al. (6th of 7 authors)
ApJ 634, 813
Manuscript edits & suggestions
- Mar. 2005 Strong-Lensing Analysis of A1689 from Deep Advanced Camera Images
Broadhurst, T., Benítez, N., Coe, D. et al. (3rd of 42 authors)
ApJ 621, 53
Multiple image photo-z's; visualization of magnification contours, critical curves; extensive edits, suggestions
- Feb. 2005 The Nature of Blue Cores in Spheroids: A Possible Connection with Active Galactic Nuclei and Star Formation
Menanteau, F. et al. (9th of 12 authors)
ApJ 620, 697
Provided photo-z catalog
- Oct. 2004 Ultracompact Dwarf Galaxies in Abell 1689: A Photometric Study with the Advanced Camera for Surveys
Miekse, S. et al. (4th of 40 authors)
ApJ 620, 697
Provided photo-z catalog

Conference Proceedings

- Jan. 2008 Dissertation Talk: LensPerfect Analysis of Abell 1689
211th AAS meeting
- Jan. 2007 Poster: LensPerfect: Exact Massmap Solutions for
Gravitationally Lensed Multiple Images
209th AAS meeting
- Oct. 2005 Talk: NICMOS Zeropoint Offsets? J~0.3 H~0.2
STScI Calibration Workshop
- Dec. 2003 Poster: Bayesian Photometric Redshift Analysis of Deep ACS
and Ground-based Imaging of Abell 1689
203rd AAS meeting
- Jan. 2003 Talk: Deep ACS & Keck Observations of Abell 1689
“Gravitational Lensing: A Unique Tool for Cosmology”
Aussois, France
ASP Conference Series, 2003
- Nov. 2002 Poster: Weak Lensing and BPZ Analyses of Abell 1689 from
ACS and Keck Observations
XIV Canary Islands Winter School of Astrophysics
“Dark Matter and Dark Energy in the Universe”

Software Publicly Released

- beta release LensPerfect
Exact Massmap Solutions to Gravitationally-Lensed Multiple
Images
- May 2006 ColorPro
PSF-corrected Aperture-Matched Photometry
- Sept. 2005 SExSeg
Runs SExtractor given input segmentation map (object
definitions)

Observing Runs

- Mar., Sept. '06; Feb. '07 Calar Alto: Alhambra Project
- April 2003 Gemini: NIR Imaging of ACS GTO Cluster Survey Targets

Teaching

Sept. 2000 – May 2001 Teaching Asst. Cornell A&EP labs

Outreach

Mar. 2008	LAPD's Deputy Auxiliary Program (8-13 year-olds): launched paper rockets
Jan. 2008	AstroZone outreach event at AAS: displayed 20-foot 3-D Mars panorama to the public (~250 attendees)
Dec. 2007	L.A.'s Best (4 th / 5 th grade classes): planet demos / activities
April 2005	JHU Physics Fair, 2 nd Annual
August 2001	Camp Sunrise: astronomy demos, incl. rockets and telescopes

Languages

English (native), Spanish (conversational), French (8 years of study)